

which are proportionately broader and with more highly confluent primary nerves.

STUDIES OF MEXICAN AND CENTRAL AMERICAN PLANTS -- II (a)

C. L. Lundell

The present paper is a continuation of studies of Mexican and Central American plants based primarily on collections in the Herbarium of the University of Michigan and the Gray Herbarium. Five of the novelties described, species of Tapi-
rira, Ilex, Clusia, Bauhinia, and Erythroxylon, were collected by the writer in 1936 on the Carnegie-Michigan expedition to British Honduras.

One of the most important collections ever made in southern Mexico was received recently from Mr. Eizi Matuda. His botanical work is being concentrated in Chiapas, a state too much neglected by botanists. A number of new and noteworthy species are represented, and seven of the novelties are described herein. Probably the outstanding discovery is a new species of Podocarpus which the writer takes pleasure in naming for the collector.

PODOCARPUS MATUDAI Lundell, sp. nov.

Arbor, foliis coriaceis, lanceolatis, 4--8.5 cm. longis, 12--19 mm. latis, apice acuminatis, basi breviter angustatis; costa supra ad basin versus prominente ad apicem versus planiuscula. Amenta mascula solitaria, sessilia, cylindrica, ca. 3.3 cm. longa, 4 mm. diam., basi bracteata.

A tree; leaves coriaceous, lanceolate, 4 to 8.5 cm. long, 12 to 19 mm. wide, apex acuminate, base short-attenuate, costa prominent above near the base, becoming plane toward the apex, plane or slightly impressed beneath; staminate ament solitary, axillary, cylindrical, about 3.3 cm. long, 4 mm. in diameter, subtended at base by 6 bracts, the bracts broadly ovate or depressed ovate, cuspidate, 2 to 4.5 mm. long.

Type in the Herbarium of the University of Michigan, E. Matuda 698, collected on Mt. Pasitar, Chiapas, Mexico, December 29, 1936.

This remarkable addition to the Mexican flora is distinguished from closely related Central American species by its prominent costa and broad leaves.

COCOLOBIA ESCUINTELENSIS Lundell, sp. nov.

Arbor. Ramuli glabri, striati. Folia glabra, subchartacea, lanceolata vel ovato-lanceolata, 10--26 cm. longa, 4--9 cm. lata, apice acuminata, basi rotundata vel obtusa; petiolicis 1--3.2 cm. longis. Inflorescentia racemosa, subpaniculata, vel subfasciculata, axillaris vel terminalis, minute puberula, 6--14 cm. longa; nodulis 1-floris; ochreolis ca. 1 mm. longis, minute puberulis; pedicellis ochreolas duplo superantibus.

A tree; branchlets glabrous, striate; petioles striate, drying blackish, glabrous, 1 to 3.2 cm. long; leaf blades entirely glabrous, subchartaceous, broadly lanceolate or ovate-lanceolate, 10.5 to 26 cm. long, 4 to 9 cm. wide, apex acuminate, base rounded or obtuse, slightly decurrent, venation prominent on both surfaces, the lateral veins about 9 on each side; inflorescence racemose, subpaniculate, or subfasciculate, axillary and terminal, 6 to 14 cm. long, the racemes slender, striate, minutely puberulous; ochreolae tubular-campanulate, about 1 mm. long, minutely puberulous, the subtending bract slightly shorter; floral pedicels solitary, stout, glabrous, about twice as long as the ochreolae; perianth tube very short, glabrous, the lobes broadly ovate-elliptic, 2 to 3 mm. long, very minutely ciliate, reflexed at anthesis; filaments glabrous, about 2 mm. long.

Type in the Herbarium of the University of Michigan, Eizi Matuda 413, collected at Escuintla, Chiapas, Mexico, December 2, 1936.

In the subpaniculate inflorescence, the central rachis is once or twice branched near the base, forming one or two short lateral racemes.

BAUHINIA GIGAS Lundell, sp. nov.

Arbor, 40-metralis, trunco 45 cm. diam., ramulis gracilibus, glabris. Folia membranacea, ovata, 7--14.5 cm. longa, 6--12.5 cm. lata, 7-nervia, glabra, ad mediam biloba, basi cordata, lobis obtusiusculis vel acuminatis; petiolicis 3--4.7 cm. longis.

An unarmed tree, 40 meters high; trunk 45 cm. in diameter; twigs slender, glabrous; stipules minute; petioles very slender, 3 to 4.7 cm. long, glabrous; leaf blades membranous, broadly ovate, 7 to 14.5 cm. long, 6 to 12.5 cm. wide, strongly 7-nerved, finely reticulate-veined on both surfaces, glabrous, dark green above, paler beneath, apex 2-lobed to below the middle, the lobes divaricate, obtusish or acuminate, base deeply cordate.

Type in the Herbarium of the University of Michigan, C. L. Lundell 6298, collected in advanced forest on top of limestone hill at Valentin, El Cayo District, British Honduras, June 29, 1936.

B. gigas is frequent in forests on the limestone hills at Valentin, and may be considered important ecologically. It is distinct from the few other North American species of similar habit. Unfortunately only sterile material was obtainable.

The writer interprets Bauhinia and Cassia in the broader sense, hence the following nomenclatorial changes are necessary.

BAUHINIA CALDERONII (Rose) Lundell, comb. nov.

Casparea Calderonii Rose, N. Amer. Fl. 23: 217. 1930.

BAUHINIA CONGESTA (Britt. & Rose) Lundell, comb. nov.

Casparea congesta Britt. & Rose, N. Amer. Fl. 23: 211.
1930.

BAUHINIA JERMYANA (Britt.) Lundell, comb. nov.

Casparea Jermyana Britton, N. Amer. Fl. 23: 211. 1930.

BAUHINIA MONANTHA (Britt. & Rose) Lundell, comb. nov.

Casparea monantha Britt. & Rose, N. Amer. Fl. 23: 210.
1930.

BAUHINIA PURPUSII (Britt.) Lundell, comb. nov.

Casparea Purpusii Britton, N. Amer. Fl. 23: 210. 1930.

CASSIA BRITTONIANA Lundell, nom. nov.

Chamaefistula chiapensis Britt. & Rose, N. Amer. Fl. 23:
238. 1930.

CASSIA COBANENSIS (Britt.) Lundell, comb. nov.

Vogelocassia cobanensis Britton, N. Amer. Fl. 23: 259.
1930.

CASSIA COMAYAGUANA (Britt. & Rose) Lundell, comb. nov.

Chamaecrista comayaguana Britt. & Rose, N. Amer. Fl. 23:
291. 1930.

CASSIA DOYLEI (Britt. & Rose) Lundell, comb. nov.

Peiransia Doylei Britt. & Rose, N. Amer. Fl. 23: 265.
1930.

CASSIA FENIXENSIS (Britt. & Rose) Lundell, comb. nov.

Chamaecrista fenixensis Britt. & Rose, N. Amer. Fl. 23:
291. 1930.

CASSIA LONGIROSTRATA (Britt. & Rose) Lundell, comb. nov.

Peiransia longirostrata Britt. & Rose, N. Amer. Fl. 23:

264. 1930.

CASSIA MAYANA Lundell, nom. nov.

Chamaecrista Tonduzii Britt. & Rose, N. Amer. Fl. 23:
290. 1930.

CASSIA YUCATANA (Britt. & Rose) Lundell, comb. nov.

Chamaecrista yucatana Britt. & Rose, N. Amer. Fl. 23:
287. 1930.

CASSIA MONSERRATENSIS Lundell, nom. nov.

Chamaecrista chiapensis Britt. & Rose, N. Amer. Fl. 23:
284. 1930.

CASSIA PINOI (Britt. & Rose) Lundell, comb. nov.

Chamaecrista Pinoi Britt. & Rose, N. Amer. Fl. 23: 283.
1930.

CASSIA SELERI (Rose) Lundell, comb. nov.

Chamaecrista Seleri Rose, N. Amer. Fl. 23: 287. 1930.

CASSIA SIMULANS (Britt. & Rose) Lundell, comb. nov.

Peirania simulans Britt. & Rose, N. Amer. Fl. 23: 266.
1930.

CASSIA STENOCARPOIDES (Britt.) Lundell, comb. nov.

Chamaecrista stenocarpoides Britton, N. Amer. Fl. 23:
293. 1930.

CASSIA SUBMONTANA (Britt. & Rose) Lundell, comb. nov.

Adiptera submontana Britt. & Rose, N. Amer. Fl. 23: 241.
1930.

CASSIA VILLOSISSIMA (Britt. & Rose) Lundell, comb. nov.

Chamaecrista villosissima Britt. & Rose, N. Amer. Fl.
23: 290. 1930.

CASSIA XANTHOPHYLLA (Britt. & Rose) Lundell, comb. nov.

Isandrina xanthophylla Britt. & Rose, N. Amer. Fl. 23:
269. 1930.

ERYTHROXYLON BELIZENSE Lundell, sp. nov.

Frutex 2 m. alt., ramulis compressis. Folia chartacea, elliptica, 3--6 cm. longa, 1.8--3.1 cm. lata, apice obtusa vel emarginata, basi obtusiuscula; petiolis 3--5 mm. longis; stipulis persistentibus, triangulatis, 3.5--4 mm. longis, 3-striatis, apice 3 (--5)-setulosis. Pedicelli fructiferi 8--10 mm. longi. Drupa oblongo-ovata, acuta, ca. 13 mm. longa, 5--6 mm. diam.

A shrub 2 meters high; twigs brown, somewhat compressed; stipules persistent, broadly triangular, 3.5 to 4 mm. long, 3-ribbed, the apex 3 (--5)-setulose; petioles slender, canaliculate, 3 to 5 mm. long; leaf blades chartaceous, elliptic, 3 to 6 cm. long, 1.8 to 3.1 cm. wide, apex obtuse or slightly emarginate, base obtusish, dark green and lustrous above, paler green beneath, costa reddish and prominent beneath, finely reticulate-veined on both surfaces; fruiting pedicels 1 to 3 in the axils, slender at base, enlarged toward apex, ribbed, 8 to 10 mm. long; fruiting calyx deeply 5-lobed, the lobes ovate-triangular, acute, splitting to length of 1.6 mm.; drupes oblong-ovate, dark red, about 13 mm. long, 5 to 6 mm. in diameter, apex acute, oblique.

Type in the Herbarium of the University of Michigan, C. L. Lundell 6810, collected in open secondary forest on top of limestone hill at San Agustin, Mountain Pine Ridge, El Cayo District, British Honduras, August 6, 1936.

Apparently closely related to E. rufum Cav. from which it most obviously differs in size of leaves, length of fruiting pedicels, and size of drupes.

TAPIRIRA MACROPHYLLA Lundell, sp. nov.

Arbor 25 m. alta. Folia magna, glabra, 26--44 cm. longa; foliolis 6 vel 7, subcoriaceis, oblongis vel elliptico-lanceolatis, 8--21 cm. longis, 3.5--7 cm. latis, apice breviter acuminatis vel acutiusculis, basi acutis. Paniculae 4.5--12 cm. longae. Drupa ovoidea, 2.3--2.8 cm. longa, obliqua, truncata.

A tree, 25 meters high; trunk 30 cm. in diameter; bark thin, black; tips of branchlets thick, striate, covered with short brownish appressed hairs; leaves pinnate, large, 26 to 44 cm. long, glabrous; petioles stout, striate, 4 to 10 cm. long; leaflets 6 or 7, the petiolules of lateral leaflets 3 to 9 mm. long, those of terminal leaflets 2 to 3 cm. long, the blades subcoriaceous, oblong or elliptic-lanceolate, 8 to 21 cm. long, 3.5 to 7 cm. wide, apex short acuminate or acutish, base acute and decurrent, costa prominent, lateral nerves 9 to 15 on each side, reticulate veined on both surfaces; panicles axillary, long-pedunculate, narrow, few-branched, 4.5 to 12 cm. long, glabrate with age; fruits ovoid, 2.3 to 2.8 cm. long, 1-celled, oblique, the apex truncate.

Type in the Herbarium of the University of Michigan, C. L. Lundell 6841, collected in riparian forest near San Agustin, Mountain Pine Ridge, El Cayo District, British Honduras, August 7, 1936.

The species appears to be closely related to T. mexicana Marchand, but may be readily distinguished by size of leaves and fruits.

ILEX BELIZENSIS Lundell, sp. nov.

Arbor glabra, 40 m. alta, trunco 45 cm. diam. Ramuli nigrescentes. Folia subcoriacea vel subchartacea, glabra, oblongo-elliptica vel oblanceolata, 5--11.5 cm. longa, 2.5--4.4 cm. lata, apice obtuse acuminata, basi rotundata et breviter decurrentia vel acutiuscula; petiolis 6--9 mm. longis; stipulis subulato-triangularibus, ca. 1.1 mm. longis, persistentibus. Infructescentiae in foliorum axillis 3--8-fasciculatae, pedicellis 2--4 mm. longis. Calyce persistenti ca. 4.5 mm. diam., breviter 4-partito. Drupa (immatura) ovoidea vel ellipsoidea, 6--7.5 mm. longa, 5--6 mm. diam.

A glabrous tree, 20 to 40 m. high; trunk 30 to 45 cm. in diam.; bole straight; bark rough, but not fissured; cortex discoloring when cut; branchlets slender, striate, drying black; internodes 0.5 to 2 cm. long; stipules triangular, subulate, about 1.1 mm. long; petioles slender, canaliculate, 6 to 9 mm. long, drying black; leaf blades subcoriaceous or subchartaceous, oblong-elliptic or broadly oblanceolate, 5 to 11.5 cm. long, 2.5 to 4.4 cm. wide, apex acuminate, the acumen obtuse, base rounded and slightly decurrent, or acutish, costa plane or slightly impressed above, prominent beneath, lateral veins slightly elevated, 7 to 10 on each side, margin entire, slightly revolute, dark green, turning blackish when dried; infructescence fasciculate, axillary, consisting of 3 to 8 pedicels; pedicels thick, 2 to 4 mm. long, minutely puberulous; the persistent calyx about 4.5 mm. wide, minutely puberulous, shallowly 4-lobed, the lobes rounded or somewhat obtuse-triangular; drupe (immature) ovoid or ellipsoid, 6 to 7.5 mm. long, 5 to 6 mm. in diam., drying black, containing 4 or 5 nutlets; the persistent stigma 4- or 5-lobed, about 2 mm. in diameter.

Type in the Herbarium of the University of Michigan, C. L. Lundell 6247, collected in advanced forest in limestone valley near Valentin, El Cayo District, British Honduras, June 26, 1936.

Additional specimens examined: BRITISH HONDURAS: El Cayo District: Valentin, Lundell 6205, 6331, 6332.

I. belizensis is one of the characteristic large trees in the advanced forest on the limestone plateau. Although most abundant in the valleys, it is also present in considerable numbers on the hills. The species is evidently related to I. guianensis (Aubl.) Kuntze.

Certain British Honduras collections [Lundell 4237; Bartlett 13087; Schipp 66, 507; Gentle 72, 1024, 1190, 1244, 1271] referred by Standley to I. panamensis Standl. agree rather closely with Guiana specimens [Broadway 741, 895; De la Cruz 2954, 3654] distributed as I. guianensis. Further study may show that I. panamensis is a synonym of this species.

CLUSIA SUBORBICULARIS Lundell, sp. nov.

Arbor 17-metralis, omnino glabra, trunco 25 cm. diam. Folia coriacea, orbiculari-obovata vel suborbicularia, 12.5--16 cm. longa, 9--12.2 cm. lata, apice rotundata, basi cuneata, breviter decurrentia, costa subtus elevata, ad apice obsoleta, nervis lateralibus prominulis; petiolis 15--20 mm. longis, crassis. Inflorescentiae terminales, breves, 2- vel 3-florae. Bracteae calycinae 6--10, latissime ovato-orbiculares, 3--9 mm. longae, rotundatae vel obtusae. Sepala 4, latissime ovato-orbicularia, ca. 11 mm. longa, 13 mm. lata, rotundata. Capsula obovoidea, ca. 3.5 cm. longa, 6-locularis (raro 5- vel 8-locularis).

A glabrous tree 17 meters high; trunk 25 cm. in diam.; petioles 15 to 20 mm. long, thick, flattened above, 3 to 4 mm. wide; leaf blades coriaceous, orbicular-obovate or suborbicular, 12.5 to 16 cm. long, 9 to 12.2 cm. wide, apex rounded, base cuneate, shortly decurrent, costa prominent beneath but becoming obsolete 2.5 to 3.5 cm. from apex, primary veins conspicuous, 20 to 25 on each side, diverging from the costa at a broad angle, merging into a submarginal vein; inflorescence terminal, very short, 2- or 3-flowered; the fruiting peduncles thick, less than 1.5 cm. long; bracts 6 to 10, very crowded, depressed ovate-orbicular, 3 to 9 mm. long, rounded or obtuse; sepals 4, depressed ovate-orbicular, about 11 mm. long, 13 mm. wide, rounded; capsule obovoid, about 3.5 cm. long, 6-celled (rarely 5- or 8-celled); the persistent stigmas 6 (rarely 5 or 8).

Type in the Herbarium of the University of Michigan, C. L. Lundell 6805, collected in open secondary forest on top of limestone hill near San Agustin, Mountain Pine Ridge, El Cayo District, British Honduras, August 6, 1936.

Additional specimens examined: GUATEMALA: Department of Petén: La Libertad, Aguilar 241; collected on top of limestone hill; vernacular name "sello".

In the absence of flowers the exact relationship of C. suborbicularis has not been determined. It is clearly unlike any American species known to the writer.

Another interesting and apparently undescribed Clusia, resembling C. Lundellii Standl., but differing in its much larger leaves and capsules 12 cm. long, was collected near Valentin on the limestone plateau.

CALYPTRANTHES BELIZENSIS (Standl.) Lundell, comb. nov.

Eugenia belizensis Standl., Field Mus. Bot. 11: 137. 1932.

The calyx is evidently calyptrate, hence the species should be referred to Calyptranthes.

EUGENIA MATUDAI Lundell, sp. nov.

Arbor glabra, ramis hornotinis crassis, compressis; internodiis 3.5--5 cm. longis. Folia lanceolata vel lanceolato-elliptica, 16--18 cm. longa, 7--7.5 cm. lata, apice angustata, obtusa, basi acuta, subchartacea, glabra; petiolis 1.7--2.2 cm. longis. Pedicelli fructiferi axillares, fasciculati, crassi, 1--3 cm. longi. Bacca ellipsoidea, 2--2.5 cm. longa, 1.7--2.3 cm. crassa, glabra, apice basique rotundata. Calycis lobi persistentes, rotundati, 6--7 mm. lati, 3--7 mm. longi, crassi.

A glabrous tree; branchlets thick, somewhat compressed, especially at the enlarged nodes; internodes 3.5 to 5 cm. long; leaves subchartaceous, large, entirely glabrous; petioles canaliculate, 1.7 to 2.2 cm. long; leaf blades lanceolate or lanceolate-elliptic, 16 to 18 cm. long, 7 to 7.5 cm. wide, narrowed to an obtuse apex, base acute, costa prominent beneath, the lateral nerves 10 to 15 on each side; fruiting pedicels axillary, fasciculate, stout, 1 to 3 cm. long, glabrous; fruits ellipsoid, 2 to 2.5 cm. long, 1.7 to 2.3 cm. thick, inconspicuously 8- to 12-ribbed, rounded at both ends, glabrous, 1-seeded; the 4 persistent calyx lobes rounded, 6 to 7 mm. wide, 3 to 7 mm. long, thick, glabrous.

Type in the Herbarium of the University of Michigan, Eizi Matuda 648, collected on Mt. Madre Vieja, Chiapas, Mexico, May 2, 1936.

The large thin leaves, long stout petioles, long fruiting pedicels, and large fruits distinguish E. Matudai.

CLETHRA GLABERRIMA Lundell, sp. nov.

Arbor. Ramuli glabri. Folia parva, glabra, coriacea, petiolis 8--14 mm. longis; laminis lanceolatis vel oblanceolatis, 5--8 cm. longis, 1.5--2.9 cm. latis, apice apiculato-obtusis vel acutis, basi obtusis vel acutis, integris. Racemi ca. 10, graciles, 1--7 cm. longi, tomentelli; pedicellis 1.2--2.7 mm. longis. Calyx tomentellus, ca. 3.6 mm. longus. Petala oblonga vel oblongo-obovata, 3--3.6 mm. longa, 2--2.2 mm. lata, emarginata, ciliato-fimbriata.

A tree; branchlets rather slender, pale reddish-brown, entirely glabrous; leaves small, glabrous, coriaceous; petioles slender, shallowly canaliculate, 8 to 14 mm. long; leaf blades lanceolate or oblanceolate, 5 to 8 cm. long, 1.5 to 2.9 cm. wide, apex apiculate-obtuse or acute, base obtuse and slightly decurrent, or acute, equal or subequal, margin entire, drying paler beneath, costa pale reddish-brown, impressed above, prominent beneath, lateral veins obscure, about 9 pairs, finely reticulate-veined; inflorescence of branched racemes; racemes about 10, slender, 1 to 7 cm. long, brownish-tomentulose with stellate hairs; pedicels 1.2 to 2.7 mm. long, each subtended by a narrow caducous bract 4 to 5 mm. long; calyx tomentulose, about 3.6 mm. long, the

segments oblong or ovate-oblong, obtuse, ciliate; petals oblong or oblong-obovate, 3 to 3.6 mm. long, 2 to 2.2 mm. wide, emarginate, ciliate-fimbriate; filaments glabrous; style short, less than 1 mm. long; ovary hirsute.

Type in the Herbarium of the University of Michigan, Eizi Matuda 520, collected on Mt. Orando, Chiapas, Mexico, April 25, 1936.

C. glaberrima evidently is related to C. suaveolens Turcz. It differs from that species in having shorter racemes and pedicels, smaller ciliate-fimbriate emarginate petals, and shorter styles.

The writer's interpretation of C. suaveolens is based on Britton's description [N. Amer. Fl. 29: 5. 1914] and specimens of the species from Alta Vera Paz, Guatemala, collected by Tuerckheim in February, 1886.

CLETHRA MATUDAI Lundell, sp. nov.

Arbor. Ramuli glabri. Folia coriacea, glabra, petiolis 0.7--2 cm. longis; laminis lanceolato-ellipticis, 7--12.5 cm. longis, 1.8--4.7 cm. latis, apice apiculato-obtusis vel acutis, basi cuneatis, serrulatis. Racemi 7, breves, fulvotomentelli.

A tree; branchlets entirely glabrous, brownish; leaves coriaceous, entirely glabrous; petioles canaliculate, 0.7 to 2 cm. long; leaf blades lanceolate-elliptic, broadest near the center, 7 to 12.5 cm. long, 1.8 to 4.7 cm. wide, apex apiculate-obtuse or acute, base cuneate, equal or subequal, apical two-thirds of margin irregularly serrulate with low incurved teeth, costa and lateral veins impressed above, the costa prominent beneath, the lateral veins slightly elevated; racemes 7, short, fulvous-tomentulose; pedicels, subtending bracts, and flower buds tomentulose.

Type in the Herbarium of the University of Michigan, Eizi Matuda 398, collected at Pasitar, Chiapas, Mexico, December 29, 1936.

Although flowering material is not available for comparison, the species appears easily separable from the other North American representatives of the genus. C. Matudai may be related to C. vulcanicola Standl. of Costa Rica, which is described as having "coarsely dentate" nearly glabrous leaves and tardily glabrate branchlets.

CLETHRA PARVIFOLIA Lundell, sp. nov.

Frutex (?) ramosissimus. Folia subcoriacea, oblanceolato-oblonga, 4.5--7.5 cm. longa, 1.3--2.5 cm. lata, apice acuminate vel acuta, basi acuta, supra glabra, subtus minute albidopuberula; petiolis 6--12 mm. longis. Racemi 3--8, graciles, 3--9 cm. longi, minute tomentelli; pedicellis 2.5--4 mm. longis. Calyx tomentellus, 3.7--4 mm. longus. Petala ob-

ovata, 4--5 mm. longa, ciliato-fimbriata.

A shrub (?), much branched; branchlets slender, rough, covered with a pale reddish-brown stellate tomentum, glabrate early; leaves clustered at the apices of the branchlets; the internodes very short; petioles slender, 6 to 12 mm. long, sparsely covered with stellate hairs; leaf blades subcoriaceous, oblanceolate-oblong, 4.5 to 7.5 cm. long, 1.3 to 2.5 cm. wide, apex acuminate or acute, base acute, costa impressed above, costa and lateral veins conspicuous beneath and glabrate very early, irregularly serrulate, entirely glabrous above, covered beneath (except upon the veins) with a very fine whitish tomentum; racemes 3 to 8, slender, erect, 3 to 9 cm. long, tomentulose; pedicels slender, 2.5 to 4 mm. long, each subtended by a narrow caducous bract equaling the pedicel; calyx tomentulose, 3.7 to 4 mm. long, the segments variable in form, ciliate, the 3 outer oblong, obovate, or ovate-oblong, acutish, the 2 inner obovate, rounded; petals obovate, 4 to 5 mm. long, ciliate-fimbriate; filaments glabrous; style 1.2 mm. long or shorter; ovary hirsute.

Type in the Herbarium of the University of Michigan, Eizi Matuda 452, collected on Mt. Orando, Chiapas, Mexico, December 30, 1936.

SIDEROXYLON MATUDAI Lundell, sp. nov.

Arbor. Folia oblanceolata, 9--19.5 cm. longa, 3.5--7 cm. lata, apice obtusiuscula, basi longe attenuata, acuta; petiolicis 1--1.8 cm. longis. Pedicelli 1.3--1.8 cm. longi. Sepala 5, persistentia, glabra, latissime ovata vel orbiculari-ovata, rotundata, inaequalia, exteriora ca. 1.5 mm. longa, 2 mm. lata, interiora 2--2.7 mm. longa, 2.5--3.2 mm. lata. Fructus subglobosus vel ovoideus, ca. 2 cm. longus.

A tree; older parts of branchlets defoliate, glabrous, reddish-brown; new growth leaf-bearing; apical buds covered with appressed reddish hairs; leaves thin, crowded at ends of branchlets, covered at first on both surfaces with appressed reddish or silvery hairs, becoming glabrous very early; petioles 1 to 1.8 cm. long, glabrous; leaf blades oblanceolate, 9 to 19.5 cm. long, 3.5 to 7 cm. wide, apex obtusish, base long-attenuate, acute, costa impressed above, prominent beneath, lateral nerves 15 to 19 on each side, prominent beneath; fruiting pedicels 1 to several, borne on branchlets below the leaves, glabrous, rather thick and stiff, 1.3 to 1.8 cm. long; calyx persisting at base of fruits 5-phyllous, glabrous, the sepals depressed ovate or orbicular-ovate, rounded at apex, unequal, the outer smaller ones less than 1.5 mm. long, about 2 mm. wide, inner ones 2 to 2.7 mm. long, 2.5 to 3.2 mm. wide; fruits subglobose or ovoid, about 2 cm. long, glabrous, sharply apiculate; seeds ovoid, about 1.8 cm. long; umbilical area ovate-oblong; en-

dosperm abundant (in immature seed).

Type in the Herbarium of the University of Michigan, Eizi Matuda 571, collected on Mt. Orando, Chiapas, Mexico, December 16, 1936.

(a) Contribution from the Herbarium of the University of Michigan.

ADDITIONAL NOTES ON THE GENUS AEGIPHILA -- II

Harold N. Moldenke

The following notes are supplementary to those contained in my original monograph of the genus (1) and in the first installment of the present series of additional notes (2). To the list of herbarium abbreviations should be added the following: Pr = Princeton University, Princeton, N. J. The total number of recorded contributors to our knowledge of this genus, as given on page 245 of my original monograph and on page 183 of the first part of these additional notes, should be 578 and the number of publications reviewed 197.

49a. AEGIPHILA ACULEIFERA Moldenke.

The species ascends to at least 1300 m. in Costa Rica and has been collected in anthesis in November. A vernacular name in Costa Rica is "tabaquilla".

Additional citations: COSTA RICA: Alajuela: Brenes 5709 [301] (F--2).

6. AEGIPHILA ANOMALA Pittier.

The species has been collected in anthesis in May and in fruit in February. A vernacular name in Costa Rica is "tabaquillo". It has been confused by some with Siparuna and a few herbarium specimens have been distributed under that name!

Additional citations: COSTA RICA: Alajuela: Brenes 6652 (F), 15,661 (F).

21a. AEGIPHILA AUSTRALIS Moldenke.

Additional citations: BRAZIL: Santa Catharina: Ule 1520 (N--photo of type, Z--photo of type).